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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,948	04/04/2002	Hideo Matsuoka	1098-02	8953

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IP GROUP OF DLA PIPER RUDNICK GRAY CARY US LLP  
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EXAMINER

PENG, KUO LIANG

ART UNIT PAPER NUMBER

1712

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/089,948

Applicant(s)

MATSUOKA ET AL.

Examiner

Kuo-Liang Peng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 5/18/05 RCE.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17,18,20 and 22-31 is/are allowed.
- 6) ☒ Claim(s) 19,21 and 32-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892).
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: See Continuation Sheet.

Continuation of Attachment(s) 6). Other: English translation of JP 05-124090.

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 18, 2005 has been entered. Claims 1-16 are deleted. Claims 19, 22-25 and 27 are amended. Claims 32-40 are added. Now, Claims 17-40 are pending.

2. Claim objection(s) in the previous Office Action (Paper No. 1104) is/are removed.

4. Claim rejection(s) of Claims 17-18 and 20-21 under 35 USC 102 and/or 103 in the previous Office Action (Paper No. 1104) is/are removed.

5. The text of those sections of Title 35, U.S. code not included in this action can be found in a prior Office Action (Paper No. 1104).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 19, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akhtar (Polymer Engineering and Science, 32(10) (1992), 690-698) in view of Kazuhiko (JP 05-124090).

Akhtar discloses a thermoplastic resin structure (page 692, left column) derived from a resin composition comprising a PPS and polyamides with various relative amounts of the two components (page 694). The morphologies are described in pages 694-695. Note that both N66 and PPS phases are continuous in the PPS/N66 (50/50) blend (page 694, left column). Same morphology is observed with PPS/AN-1 (50/50 blend)(page 695).

Akhtar further teaches that the blend possess the characteristics of good moldability, superior mechanical properties, etc. (page 690) Furthermore, it is well known that the blend is an excellent molding material for preparing containers, etc. For

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example, Kazuhiko teaches the use of a PPS/polyamide blend for making tanks, bottles, etc. ([0008]-[0009] and [0078]) Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize Akhtar's resin composition for making containers. Furthermore, since Akhtar's composition can be used for making containers, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the same material for any attached part for the container. The motivation is to prepare containers with attached parts possessing the same characteristics as the containers so that the containers and the attached parts as a whole can withstand whatever environment they are subjected to.

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akhtar in view of Kazuhiko as applied to Claim 19 above, and further in view of Kashiwadata (US 5 436 300)

Akhtar in view of Kazuhiko discloses a container prepared by a PPS and polyamide blend, supra, which is incorporated herein by reference. Akhtar is silent on the use of an inorganic filler. However, it is a common practice to add an inorganic filler to further enhance the mechanical properties of the blend besides optimizing the morphologies. Furthermore, Kashiwadata discloses a polyarylene

sulfide/polyamide blend comprising up to 60%wt of an inorganic filler. The motivation of adding the inorganic filler is to afford a composition with improved mechanical strength. (Abstract, col. 1, line 59 to col. 2, lines 46 and col. 6, line 37 to col. 9, line 6) Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate an inorganic filler into Akhtar's blend.

9. Claims 19 and 32-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akhtar in view of Tateyama (US 6 485 806).

Akhtar discloses a thermoplastic resin structure (page 692, left column) derived from a resin composition comprising a PPS and polyamides with various relative amounts of the two components (page 694). The morphologies are described in pages 694-695. Note that both N66 and PPS phases are continuous in the PPS/N66 (50/50) blend (page 694, left column). Same morphology is observed with PPS/AN-1 (50/50 blend)(page 695).

Akhtar further teaches that the blend possess the characteristics of good moldability, superior mechanical properties, etc. (page 690) Furthermore, it is well known that the blend is an excellent molding material for preparing a multilayered articles. For example, Tateyama discloses a multilayered molding article such as containers,

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tubes, pipes, etc, etc. utilizing as a material for one of the layers a blend of PPS and polyamide. The polyamide can be Nylon 6, Nylon 66, etc. (col. 2, lines 15-26, and col. 5, line 59 to col. 6, line 9) Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize Akhtar's resin composition in a multilayered container. Furthermore, since Akhtar's composition can be used for making multilayered containers, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the same material for any attached part for the container. The motivation is to prepare multilayered containers with attached parts possessing the same characteristics as the containers so that the multilayered containers and the attached parts as a whole can withstand whatever environment they are subjected to. Note that there is a neighboring thermoplastic layer on Tateyama's PPS/polyamide layer. (col. 2, lines 15-26) This neighboring thermoplastic layer can be the same material as the thermoplastic resin (A3), i.e., polyolefins, polyamides, polyesters, etc. (col. 2, lines 15-26 and col. 5, lines 59-65) The multilayered article can be formed by co-extrusion. (Tateyama, col. 10, lines 17-27)

10. Claims 17-18, 20, and 22-31 are allowed.



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11. The following is an examiner's statement of reasons for allowance:

None of the above references teaches or fairly suggests the specific morphology set forth in the instant claims.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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klp

June 10, 2005

A handwritten signature in black ink, appearing to read 'Kuo-Liang Peng', written in a cursive style.

Kuo-Liang Peng  
Primary Examiner  
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